

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 – 28 (Canceled).

Claim 29 (Previously presented): A therapeutic vaccine against tuberculosis comprising one or more mycobacteria polypeptides and a pharmaceutically acceptable polymeric carrier bound to the one or more polypeptides or a pharmaceutically acceptable adjuvant, which polypeptides are upregulated or expressed during the latent stage of the mycobacteria infection which is characterized by low-oxygen tension in the microenvironment of the mycobacteria, wherein the one or more polypeptides has an amino acid sequence selected from SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45.

Claim 30 (Currently amended): The therapeutic vaccine according to claim 29, wherein ~~[[the]]~~ one of said one or more polypeptides has an amino acid sequence of SEQ ID NO: 24.

Claim 31 (Currently amended): The therapeutic vaccine according to claim 29, wherein at least one of ~~[[the]]~~ said one or more polypeptides is fused to at least one fusion partner which is an antigen expressed by bacteria within the mycobacteria family heterologous to said one or more polypeptides.

Claim 32 (Currently amended): The therapeutic vaccine according to ~~claim~~ claim 31 where the fusion partner is selected from the group consisting of ESAT-6,

ESAT-6-Ag85B, TB10.4, CFP10, RD1-ORF5, RD1-ORF2, Rv1036, MPB64, MPT64, Ag85A, Ag85B (MPT59), MPB59, Ag85C, 19kDa lipoprotein, and MPT32.

Claim 33 (Canceled).

Claim 34 (Previously presented): The therapeutic vaccine according to claim 29, where the polypeptides are recombinant or synthetic and are delivered in a delivery system comprising an adjuvant.

Claim 35 (Previously presented): The therapeutic vaccine according to claim 29, in which the polypeptide is lipidated thereby providing a self-adjuvanting effect of the polypeptide.

Claim 36 (Previously presented): The therapeutic vaccine according to claim 29, which comprises a polymeric carrier bound by covalent or non-covalent interactions to at least one of the one or more polypeptides.

Claim 37 (Previously presented): The therapeutic vaccine according to claim 36, wherein the polymeric carrier is a polystyrene.

Claim 38 (Currently amended): A therapeutic vaccine against tuberculosis comprising one or more mycobacteria ~~peptides~~polypeptides and a pharmaceutically acceptable polymeric carrier bound to the one or more ~~peptides~~polypeptides or a pharmaceutically acceptable adjuvant, which polypeptides are upregulated or expressed during the latent stage of the mycobacteria infection which is characterized by low-oxygen tension in the microenvironment of the mycobacteria, wherein the one or more ~~peptides~~polypeptides has an amino acid sequence selected from a ~~peptide~~polypeptide comprising amino acids 11 to 30 of SEQ ID NO: 24 and a ~~peptide~~polypeptide comprising amino acids 81 to 100 of SEQ ID NO: 24.

Claim 39 (Currently amended): The therapeutic vaccine according to claim 38, wherein at least one of [[the]] said one or more peptides~~polypeptides~~ is fused to at least one fusion partner which is an antigen expressed by bacteria within the mycobacteria family heterologous to said one or more polypeptides.

Claim 40 (Currently amended): The therapeutic vaccine according to ~~claim~~ claim 42 where the fusion partner is selected from the group consisting of ESAT-6, ESAT-6-Ag85B, TB10.4, CFP10, RD1-ORF5, RD1-ORF2, Rv1036, MPB64, MPT64, Ag85A, Ag85B (MPT59), MPB59, Ag85C, 19kDa lipoprotein, and MPT32.

Claim 41 (New): The therapeutic vaccine according to claim 39, wherein said at least one fusion partner is a different said one or more polypeptides.

Claim 42 (New): The therapeutic vaccine according to claim 39, wherein said at least one fusion partner is an antigen expressed by bacteria within the mycobacteria family other than said one or more polypeptides.

Claim 43 (New): The therapeutic vaccine according to claim 31, wherein said at least one fusion partner is a different said one or more polypeptides.

Claim 44 (New): The therapeutic vaccine according to claim 31, wherein said at least one fusion partner is an antigen expressed by bacteria within the mycobacteria family other than said one or more polypeptides.

Claim 45 (New): A therapeutic vaccine against tuberculosis comprising one or more mycobacteria polypeptides and (i) a pharmaceutically acceptable polymeric carrier bound to the one or more polypeptides or (ii) a pharmaceutically acceptable adjuvant, wherein said one or more polypeptides has an amino acid sequence selected from SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45,

wherein said one or more polypeptides is fused to at least one mycobacteria fusion partner.

Claim 46 (New): The therapeutic vaccine according to claim 45, wherein said at least one mycobacteria fusion partner is selected from the group consisting of ESAT-6, ESAT-6-Ag85B, TB10.4, CFP10, RD1-ORF5, RD1-ORF2, Rv1036, MPB64, MPT64, Ag85A, Ag85B (MPT59), MPB59, Ag85C, 19kDa lipoprotein, and MPT32.

Claim 47 (New): The therapeutic vaccine according to claim 45, comprising a said one or more polypeptides fused to a different said one or more polypeptides.